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EXAMINER

HU, KANG

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3715

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/798,531	Applicant(s) UHLIR ET AL.	
	Examiner KANG HU	Art Unit 3715	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/21/2009</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. Present office action is in response to amendment filed 10/22/2008. Claim 1 has been amended, claims 28-32 have been added. Currently claims 1-32 are pending in the application.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 29-32 are rejected under USC 101, the claimed invention is directed to non-statutory subject matter. In order for a claimed process to be considered statutory it must be: (1) tied to a particular machine or apparatus, or (2) transform a particular article into a different state or thing. The use of a specific machine or transformation of an article must impose meaningful limits on the claim's scope to impart patent-eligibility; the involvement of the machine or transformation in the claimed process must not merely be insignificant extra-solution activity; and the transformation must be central to the purpose of the claimed process. Claim 29 as recited do not act upon a physical object so as to provide a transformation of that object into a different state or thing. Further the claims do not recite a tie to a particular machine or apparatus. The recitation of "operating a computer game that runs on a computer platform" is a nominal recitation of computer programming, a computer program not claimed in combination with the computer which allows its functionality to be executed is considered non-statutory, as being drawn to purely functional descriptive material.

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Claims 30-32 are rejected for its dependency upon claim 29 for failing to correct these deficiencies. As such, they are rejected for the same reason.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ashby et al. (US 6,047,280)

Re claim 1, Ashby teaches a computer-game system comprising:

a map database containing data that represent roads in a real-world geographic locale, the data including navigation-related attributes, including turn restriction content, for real-world navigation on the roads in the real-world geographic locale (col 1, lines 33-49 and col 5, lines 17-28);

a user interface (navigation application program interface);

Ashby does not explicitly state a game engine program configured for running on a computer platform and for presenting a computer game scenario to a user via the user interface, however Ashby teaches of using a navigation application program, the navigation application program is analogous to the game engine program because both are software programs for presenting information to the user, the gaming aspect of such program is intended use and does not provide any structural difference; and

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an programming interface program configured for running on the computer platform, for accepting requests for data from the game engine program, for accessing the data from the map database, and for providing data in a suitable format to the game engine program (claims 1 and 29; col 5, line 39-40: data access interface layer);

wherein the map database, the user interface, the game engine program, and the application programming interface program are stored on at least one computer-readable medium (col 5, line 34: storage medium).

Re claim 28, the real-world navigation includes vehicle route calculation and vehicle route guidance corresponding to the roads in a real-world geographic locale (Ashby, col 4, line 59).

6. Claims 2-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ashby et al. (US 6,047,280) in view of Virtual GIS: A REAL-TIME 3D GEOGRAPHIC INFORMATION SYSTEM (NPL submitted 01/09/2008) hereon after known as Virtual GIS.

Re claim 2, Ashby does not teach of a 3D function configured for converting geographic data from the map database to a perspective view for display in the computer game. Virtual GIS teaches "the ability to have detailed 3D views and to jump..." and "Planners for new buildings or other facilities can see full 3D views from their prospective sites... in addition, they can use the GIS database to display..." on page 2, col 1, lines 25-30 and lines 35-37). It would have been prima facie obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Ashby with Virtual GIS to transform geographic data from the map database into perspective views because such method is known for better visualization than a traditional GIS.

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Ashby and Virtual GIS are analogous art in solving the problem of presenting geographic data information to the user in a user interface.

Virtual GIS further teaches:

Re claim 3, a smoothing function configured for determining a curve through data points used in the map database to represent a linearly extending feature, wherein the curve is used for display of the linearly extending feature in the computer game (Virtual GIS: 2.1 Datasets: "Terrain surfaces are visualized as a mesh of shaded or textured polygons. Additional non-protruding features may be overlaid on the surface, such as graphical representations of roads and waterways" Page 4, col 1, lines 1-10).

Re claim 4, an integration function configured to combining road model data with data that represent roads from the map database to provide a realistic visual appearance of road-related things (Virtual GIS: 2.1 Datasets: "Both datasets also include geographical information databases as well as models of trees, buildings, and vehicles. Thus we have for our use two large, realistic datasets, the former emphasizing terrain feature such as mountains, hills and waterways.." Page 4, col 2, lines 19-26).

Re claim 5, road-related things include at least one selected from the group consisting of: road colors, road pavement, lane stripes, curbs, sidewalks, signs, lampposts, lane dividers, traffic signals, speed bumps, and crosswalks (Virtual GIS: 2.1 Datasets: "non-protruding features may be overlaid on the surface, such as graphical representations of roads and waterways" and

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“Information such as soil type, road surface, or foliage density can be stored in these GIS layers and be rendered”, page 4, col 1, lines 1-22).

Re claim 6, an integration function configured for combining 3D model data with data that represent roads from the map database to provide realistic visual representation of polygon shaped features in the geographic locale (Virtual GIS: 2.1 Datasets: “Terrain surfaces are visualized as a mesh of shaded or textured polygons”, page 4, col 1, lines 3-4).

Re claim 7, an integration function configured for combining 3D model data with data that represent roads from the map database to provide a realistic visual representation of cityscape and landscape features in the geographic locale (Virtual GIS: 2.1 Datasets: “Both datasets also include geographical information databases as well as models of trees, buildings, and vehicles. Thus we have for our use two large, realistic datasets, the former emphasizing terrain feature such as mountains, hills and waterways..” Page 4, col 2, lines 19-26).

Re claim 8, an integration function configured for combining 3D model data with data that represent roads from the map database to provide a realistic visual representation of one of the group consisting of: buildings, fences, trees, shrubbery, lawns, fences, and clouds in the geographic locale (Virtual GIS: 2.1 Datasets: “Both datasets also include geographical information databases as well as models of trees, buildings, and vehicles. Thus we have for our use two large, realistic datasets, the former emphasizing terrain feature such as mountains, hills and waterways..” Page 4, col 2, lines 19-26).

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Re claim 9, application programming interface program is further configured for providing for spatial queries of data from the database (Ashby, col 27, lines 22-34).

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to combine Ashby with Virtual GIS to use known methods to transform geographic data from the map database into perspective three dimensional views because such method is known for better visualization than a traditional GIS. Ashby and Virtual GIS are analogous art in solving the problem of presenting geographic data information to the user in a user interface

7. Claims 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ashby et al. (US 6,047,280) in view of Virtual GIS and further in view of Microsoft Flight Simulator 2004, a Century of flight, Official Strategies & Secrets, NPL submitted 04/08/2008, hereon after known as Microsoft Flight Sim.

Re claim 10, Ashby and Virtual GIS does not teach of having a game application shell that includes basic logic, rules, strategy, and characters for a type of computer game, wherein the game application shell is configured for access by the game engine program, Microsoft Flight Sim is a game that has game application shell that includes basic logic, rules and strategy (Microsoft Flight Sim, pg 135).

Re claim 11, computer game is of a type selected from a group consisting of: a road rally game, a police chase game, a location quiz game, a “bot” fighter game, a flight simulator game, a “first-

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person-shooter” game, an auto theft game, and an urban development simulator game (Microsoft Flight Sim is a flight simulator game).

Re claim 12, the game engine program is configured for performing specific tasks and for operating on an as-needed basis during game play (Microsoft Flight Sim takes control input from the user Fig 8.2).

Re claim 13, game engine program comprises at least one selected from the group consisting of: audio engines, logic engines, rules engines, animation engines, graphics engines, and user interface engines (Microsoft Flight Sim, Fig 8.2).

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Microsoft Flight Sim in combination with Ashby and Virtual GIS in order to provide a more realistic three dimensional graphical representation with gaming features. Microsoft Flight Sim is also analogous art of presenting geographical graphical information to the user.

8. Claims 14-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over “Virtual GIS: a Real-time 3D Geographic Information System” hereon after known as Virtual GIS, in view of Microsoft Flight Simulator 2004, A Century of Flight hereon after known as Microsoft Flight Sim as previously rejected along with claims 1-13 in the office action dated 7/22/2008.

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Re claim 14, a method of operating a computer game that runs on a computer platform, the method comprising:

using an application programming interface program that runs on the computer platform to accept requests for geographic data from a game engine program (Virtual GIS: we have implemented window-based (computer platform) and virtual reality versions (game engine program) and in both cases provide a direct manipulation, visual interface (application programming interface) for accessing the Geographic Information Systems data (geographic data) (abstract);

using the application programming interface program to access the geographic data from a map database (GIS database), the geographic data derived from a database suitable for vehicle navigation on roads in a real-world geographic locale (Virtual GIS: page 5, 2.2.1 Navigation: movement about the environment can be constrained in a number of ways. Figures 2 and 3 show the viewpoint attached to a moving tank and helicopter, respectively);

using the application programming interface program to provide the geographic data from the map database in a suitable format to the game engine program (Virtual GIS: 2.2.3 Render Options, users of Virtual GIS are afforded significant control over what features in the environment are rendered. Roads, waterways, trees, buildings, and military units... significant default textured mode, the terrain is rendered with phototexture imagery applied to the terrain polygons);

Virtual GIS does not explicit teach of the intended use of the system including presenting a game scenario on a user interface, rather Virtual GIS teaches of presenting GIS for various purposes such as urban planning, evaluation of vegetation, soil waterway, or road patterns, food planning

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and many other tasks (page 2, 2nd paragraph), Microsoft Flight Sim teaches of presenting a game scenario on a user interface of a computer platform to a user (Microsoft Flight Sim, game scenario – flying from Jacksonville to St. Pete fig 6.11; user interface fig 8.2).

Re claim 15, displaying geographic features represented by the data on a display by the computer platform as part of a game play scenario of the computer game (Virtual GIS: 2.1 Datasets: Trees in Virtual GIS datasets are represented so as to have a realistic appearance, 3rd paragraph)

Re claim 16, converting the geographic data from the map database to a perspective view for display by the computer platform as part of a game play scenario of the computer game (Virtual GIS teaches "the ability to have detailed 3D views and to jump..." and "Planners for new buildings or other facilities can see full 3D views from their prospective sites... in addition, they can use the GIS database to display..." on page 2, col 1, lines 25-30 and lines 35-37).

Re claim 17, determining a curve through data points used in the map database to represent linearly extending feature, wherein the curve is used for display of at least one of the linearly extending features by the computer platform as part of a game play scenario of the computer game (Virtual GIS: 2.1 Datasets: "Terrain surfaces are visualized as a mesh of shaded or textured polygons. Additional non-protruding features may be overlaid on the surface, such as graphical representations of roads and waterways" Page 4, col 1, lines 1-10)

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Re claim 18, combining road model data with data that represent roads from the map database to provide a realistic visual appearance of road-related things by the computer platform as part of a game play scenario of the computer game (Virtual GIS 2.1 Datasets: Each dataset used with Virtual GIS may contain several types of information... non protruding features may be overlaid on the surface.... protruding features include individual trees and buildings).

Re claim 19, the road related things include at least one selected from a group consisting of: road colors, road pavement, lane stripes, curbs, sidewalks, signs, lampposts, lane dividers, traffic signals, speed bumps, and crosswalks (Virtual GIS 2.1 Datasets: non protruding features).

Re claim 20, combining 3D model data with data that represent roads from the map database to provide a realistic visual representation of polygon shaped features in the geographic locale by the computer platform as part of a game play scenario of the computer game (Virtual GIS: 2.1 Datasets: "Terrain surfaces are visualized as a mesh of shaded or textured polygons", page 4, col 1, lines 3-4).

Re claim 21, combining 3D model data with data that represent roads from the map database to provide a realistic visual representation of cityscape and landscape features in the geographic locale by the computer platform as part of a game play scenario of the computer game (Virtual GIS: 2.1 Datasets: "Both datasets also include geographical information databases as well as models of trees, buildings, and vehicles. Thus we have for our use two large, realistic datasets,

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the former emphasizing terrain feature such as mountains, hills and waterways..” Page 4, col 2, lines 19-26).

Re claim 22, combining 3D model data with data that represent roads from the map database to provide a realistic visual representation of one of the group consisting of: buildings, fences, trees, shrubbery, lawns, fences, and clouds in the geographic locale by the computer platform as part of a game play scenario of the computer game (Virtual GIS: 2.1 Datasets: “Both datasets also include geographical information databases as well as models of trees, buildings, and vehicles. Thus we have for our use two large, realistic datasets, the former emphasizing terrain feature such as mountains, hills and waterways..” Page 4, col 2, lines 19-26).

Re claim 23, application programming interface program is further configured for providing for spatial queries of data from the map database (Virtual GIS: 2.2.2 Query: users of the system can access this database by directly querying objects in the virtual environment, page 5).

The limitations missing from Virtual GIS are taught below:

Re claim 24, using the game engine program to access a game application shell that includes basic logic, rules, strategy, and characters for a type of computer game (Microsoft Flight Sim, pg 135).

Re claim 25, the type of computer game is selected from a group consisting of: a road rally game, a police chase game, a location quiz game, a “bot” fighter game, a flight simulator game, a

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“first-person-shooter” game, an auto theft game, and an urban development simulator game (Microsoft Flight Sim is a flight simulator game).

Re claim 26, using the game engine program to perform specific tasks and operate on an as-needed basis during game play scenario of the computer game (Microsoft Flight Sim takes control input from the user Fig 8.2)

Re claim 27, game engine program comprises at least one selected from the group consisting of: audio engines, logic engines, rules engines, animation engines, graphics engines, and user interface engines (Microsoft Flight Sim, Fig 8.2).

It would have been prima facie obvious for one of ordinary skill in the art at the time of the invention to combine the teachings of Virtual GIS and Microsoft Flight Sim, as Microsoft Flight Sim provides the user with the entertainment additions such as game scenarios to the user for the intended use of entertainment. Virtual GIS and Microsoft Flight Sim are also analogous art for providing users with three dimensional geographical data representations.

9. Claims 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ashby (US 6,047,280) in view of Microsoft Flight Simulator indicated above.

Re claim 29, in addition to the teachings of claim 1, Ashby further teaches using the application programming interface to access the geographic data from a map database (col 5, lines 39-40: data access interface layer), the geographic data including a plurality of road segment records

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that represent portions of roads in a real-world geographic locale (fig 3, application software, route calculation, map display, direction generation, map matching, user interface, etc.), wherein each of the road segment records corresponds to navigation-related functions for real-world navigation on the roads in the real-world geographic locale, the navigation-related attribute data including (i) geographic coordinates (col 1, lines 43-45: the detailed geographic data set may include information about the positions of roads and intersections in or related to one or more specific geographic regional areas); (ii) a street name (col 9, line 62), (iii) an address range, (iv) a turn restriction (col 2, line 47), and (v) road shape (col 32, line 23: shape point information);

Using the application programming interface to provide the geographic data from the map database in a suitable format to the game engine program (col 5, lines 39-40: data access interface layer).

Ashby does not teach of presenting a game scenario on a user interface of a computer platform to a user, Microsoft Flight Sim presents a game scenario on a user interface to a user. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Ashby with Microsoft Flight Sim in order to present more accurate visual geographic data for the intended use of a game. Both Ashby and Microsoft Flight Sim teach the method of presenting geographical data representation to the user in a user interface.

Re claim 30, application programming interface requests data representing all road segment records within a selected area from the map database as a function of spatial query, the spatial query defining the selected area (col 9, lines 34-62).

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Re claim 31, Ashby teach the selected area is defined by a longitude and latitude point and a radial distance from the longitude and latitude point. (col 9, lines 42-45: query requests can be qualified by geographical parameters or attributes).

Re claim 32, the selected area is defined by a rectangular area having specified geographic boundaries (col 9, line 60 – rectangular queries).

Response to Arguments

10. Applicant's arguments filed 10/22/2008 have been fully considered but they are not persuasive.

11. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection. The applicant's amended claim limitation to include turn restriction content has been addressed above in the rejection and will not be repeated herein.

12. Re claim 14, the argument provided in claim 1 does not appropriately apply to claim 14, as the claim limitations are different following amendment made on 10/22/2008. Applicant's argument in regards to claim 14, that the prior art does not teach or suggest using the application programming interface program to access the geographic data from a map database, and the geographic data derived from a database suitable for vehicle navigation on roads in a real-world geographic locale has been carefully considered and are not persuasive. Previously the examiner stated that Microsoft Flight Sim does not explicitly teach of application programming interface

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for the use of accessing geographic data from a map database. It would have been inherent as the game requests geographic data from the geographic database. The applicant has not challenged the examiner's assertion that it would have been inherent, rather the applicant's argument that the reference fail to show certain features of applicant's invention, particularly a database suitable for real-world vehicle navigation on roads in a real-world geographic locale. The applicant further argued that datasets of graphical representation of roads or phototexture aerial photo imagery and visual gaming features are not the same as data derived from a database that is used for vehicle navigation-related functions, such as route calculation, route guidance, destination time, and other functions, on real roads. The examiner respectfully notes that the features the applicant relies upon, the additional limitations (route calculation, route guidance, destination time, and other functions, on real roads), support for such database are not recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Page 5 of Virtual GIS, (section 2.2.1 Navigation) specifically teaches "allows the user to ride the vehicle through the terrain on its pre-assigned route", therefore providing for a database that is suitable for real-world vehicle navigation on roads in a real-world geographic locale.

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Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KANG HU whose telephone number is (571)270-1344. The examiner can normally be reached on 8-5 (Mon-Thurs).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xuan Thai can be reached on 571-262-7147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kathleen Mosser/
Primary Examiner, Art Unit 3715

/K. H./
Examiner, Art Unit 3715